An Extract of an account given by Mr. Flamſtead *of his own and Mr.* Edmund Halleys *Obſervations concerning the Spots in the Sun, appearing in* July *and* Auguſt 1676.

THe following *Ephemeris* was deduced from careful obſervations (made with the Micrometer) of the Diſtances of the Spots from the Limb of the Sun, and the differences of Altitudes and Azimuths from the upper and under parts and ſides of him. The comparing of the Obſervations made in two diſtant places, *Greenwich* and *Oxford*, do evince the diligence of the Obſervers and the goodneſs of their Inſtruments; the differences between them being eaſily excuſable, for that the Spot had a diameter more conſiderable than any of the differences, and was broken into ſeveral pieces. See *Tab* II. *Fig.* 1.

1676. Julii *ſt. v.*	Grenovici *Tempus obſervationum.*	*Longit. from the ☉ center.*	*Latitud. South.*	*1676.*	Oxonii	*Long.*	*Lat.*
					h.	' "	' "
				Jul.25	*6.46.P.M.Con.*	13.40	2.08
				26.27	28 *dies nubili.*		*Auſt.*
	h.	' "	' "				
27	10.03.A.M.Con.	9.34	3.25				
28	4.51	5.40	2.50				
29	10.31. A.M.	3.05	3.27	29	6.21. A.M.	3.55	3.22
	3.54. P.M.	2.25	3.10				
30	9.15. A.M.Ant.	0.37	3.33	30	7.20.A.M.	0.00	3.32
31	. . . . .	.	.	31	7.40.A.M.	3.36	3.28
1.Aug.	9.24⅚ A.M.	6.48	4.09	1.Aug.	7.03.A.M.	6.54	3.50
	. . . . .	.	.		5.06. P.M.	8.07	3.53
2	8.08. A.M.	9.49	3.55	2	7.16. A.M.	9.57	3.46
3	9.36. A. M.	12.28	3.27	3	5.09. P.M.	13.15	3.56
	4.16⅔ P.M.	12.55	3.58		6.02. P.M.	13.25	3.26
4	7.38. A.M.	14.02	4.04	4	7.33. A.M.	14.07	3.14
					4.54. P.M.	14.43	3.23

Mr. *Hally* ſaith, that he ſaw the Spot again on the fifth day at 8h. 30' *mane*, very near the limb of the Sun, ſo that it appeared only as a fine line; but by reaſon of its fineneſs and the too great height of the Sun he could not take any meaſures to determine its place and latitude by; and that, while the Spot

continued

continued one, as it was *July* 25, he meaſured to the middle of it; as alſo when the pieces were divided, but not far disjoyned: Afterwards, when they were ſeparated conſiderably, he obſerved the middle of the bigger Spot, which was to the South, apparently, I ſuppoſe; but really, North: for ſo only his Obſervations will agree with thoſe of Mr. *Flamſtead* exactly.

Hence it ſeems very evident (ſaith Mr. *Flamſtead*,) that the Spots way was not inclined to the Ecliptick ſix or ſeven degrees, as *Scheiner* and ſome others make it, but much leſs, by the joynt conſent of the obſervations of both our Obſervers. Mr. *Hally* adds, that conſidering the motion of the ‘Spot croſs the Suns diſque, *as both their Obſervations give it*, ‘it appears, that the Latitude was not ſo great at its Entrance ‘into the Sun as in the Middle of him. And by Mr. *Flamſteads* ‘Obſervation it was greateſt on the firſt of *Auguſt*, and then ‘again inclining towards the Ecliptick. If you grant this, it ‘will follow, (infers Mr. *Flamſtead*) that the Suns *Axis* was in‘clined to the plain of the *Orbis Magnus*; but the quantity ‘of this Inclination muſt not be very great. The *Nodes* of ‘the Suns Equinox and Ecliptick he gueſſes to be not far from ‘the beginning of *Cancer* and *Capricorn*; and that from *Cancer* ‘to *Capricorn* the Earth is North of the Suns Equator; from ‘*Capricorn* to *Cancer*, South of the ſame: And the period of ‘the Suns revolution in reſpect of the fixed Stars 25 daies, ‘9½ hours ſufficiently exact. Of which things, theſe two Obſervers ſay, they might have been more certain, had not the Spot in its paſſage broken into ſo many parts, and thoſe often varied their poſitions to each other. Theſe Conjectures though probable, yet when another of the like *phænomena* appears, will ſtill deſerve the further conſideration of the Curious.

Tab. II.

Ph Tr N°. 128.

Fig. III.

14 Augusti

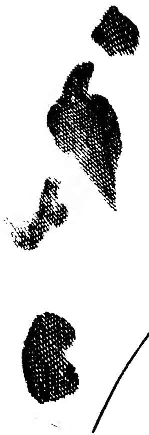


Fig. II.

Macula in ☉ 8 Aug.

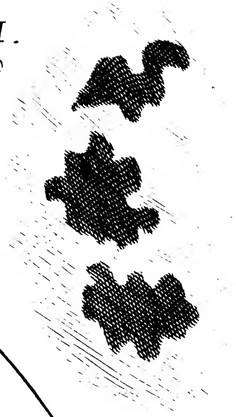


Fig. I.

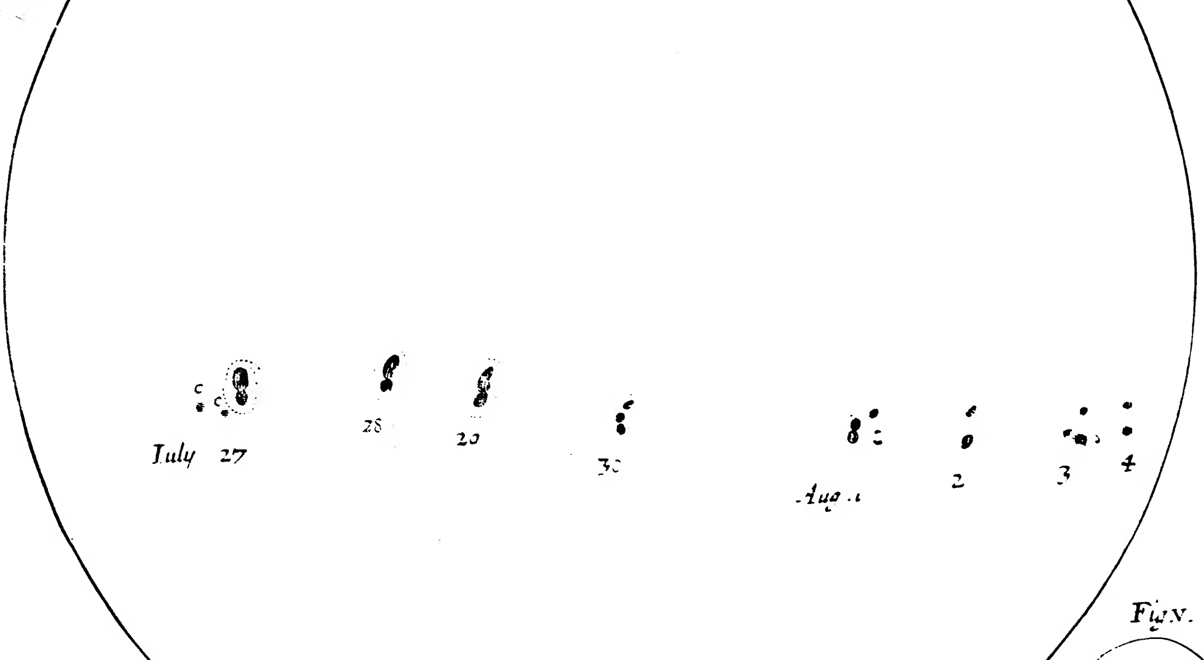


Fig. IV.

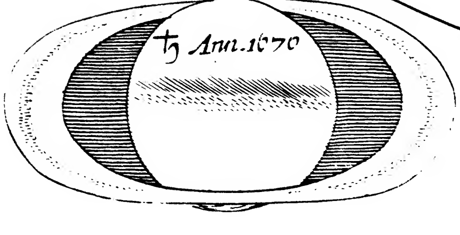
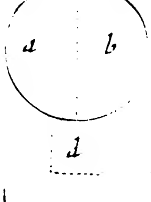


Fig. V.



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